

Claims

What is claimed is:

1 1. A method for implementing dynamic cosimulation comprising
2 the steps of:

3 utilizing a cosimulation bridge for data exchange between a primary
4 simulator and a secondary simulator;

5 defining a plurality of user selected optimization control signals over
6 said cosimulation bridge;

7 identifying at least one user selected optimization control signal for
8 disabling said cosimulation bridge; and

9 dynamically disengaging said primary simulator and said secondary
10 simulator for ending data exchange responsive to said disabling said
11 cosimulation bridge.

1 2. A method for implementing dynamic cosimulation as recited in
2 claim 1 further includes the steps of checking whether said identified at least
3 one user selected optimization control signal for disabling said cosimulation
4 bridge remains active; and responsive to said identified at least one user
5 selected optimization control signal being inactive for enabling said
6 cosimulation bridge.

1 3. A method for implementing dynamic cosimulation as recited in
2 claim 2 further includes the steps of dynamically re-engaging said primary
3 simulator and said secondary simulator for said data exchange responsive to
4 said enabling said cosimulation bridge.

1 4. A method for implementing dynamic cosimulation as recited in
2 claim 1 wherein the step of defining a plurality of user selected optimization
3 control signals over said cosimulation bridge includes the steps of defining a
4 single sided disable; said single sided disable defining a disable control
5 signal for one of said primary simulator or said secondary simulator.

1 5. A method for implementing dynamic cosimulation as recited in
2 claim 1 wherein the step of defining a plurality of user selected optimization
3 control signals over said cosimulation bridge includes the steps of defining a
4 two independent disable; said two independent disable defining a respective
5 disable control signal for each of said primary simulator and said secondary
6 simulator.

1 6. A method for implementing dynamic cosimulation as recited in
2 claim 1 wherein the step of defining a plurality of user selected optimization
3 control signals over said cosimulation bridge includes the steps of defining a
4 functional OR disable; said functional OR disable defining a common disable
5 for both said primary simulator and said secondary simulator; either said
6 primary simulator or said secondary simulator activating a functional OR
7 disable to activate said common disable.

1 7. A method for implementing dynamic cosimulation as recited in
2 claim 1 wherein the step of defining a plurality of user selected optimization
3 control signals over said cosimulation bridge includes the steps of defining a
4 functional AND disable; said functional AND disable defining a common
5 disable for both said primary simulator and said secondary simulator; both
6 said primary simulator and said secondary simulator activating a functional
7 AND disable to activate said common disable.

1 8. A method for implementing dynamic cosimulation as recited in
2 claim 1 wherein the step of defining a plurality of user selected optimization
3 control signals over said cosimulation bridge includes the steps of defining a
4 suspend signal for each of said primary simulator and said secondary
5 simulator.

1 9. Apparatus for implementing dynamic cosimulation comprising:
2 a cosimulation bridge for data exchange between a primary simulator
3 and a secondary simulator;
4 a plurality of user selected optimization control signals defined over
5 said cosimulation bridge;
6 a control program for identifying at least one user selected
7 optimization control signal for disabling said cosimulation bridge; and for
8 dynamically disengaging said primary simulator and said secondary
9 simulator for ending data exchange responsive to said disabling said
10 cosimulation bridge.

1 10. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said control program for identifying said identified at least
3 one user selected optimization control signal being deactivated for enabling
4 said cosimulation bridge and dynamically re-engaging said primary simulator
5 and said secondary simulator for data exchange.

1 11. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said plurality of user selected optimization control signals
3 defined over said cosimulation bridge include a plurality of disable control
4 signals and a plurality of suspend signals.

1 12. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said plurality of user selected optimization control signals
3 defined over said cosimulation bridge include a single sided disable; said
4 single sided disable for defining a disable control signal for one of said
5 primary simulator and said secondary simulator.

1 13. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said plurality of user selected optimization control signals
3 defined over said cosimulation bridge include a two independent disable;
4 said two independent disable for defining a respective disable control signal
5 for each of said primary simulator and said secondary simulator.

1 14. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said plurality of user selected optimization control signals
3 defined over said cosimulation bridge include a functional OR disable; said
4 functional OR disable for defining a common disable for both said primary
5 simulator and said secondary simulator; said common disable being
6 activated responsive to a functional OR disable control from either said
7 primary simulator or said secondary simulator.

1 15. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said plurality of user selected optimization control signals
3 defined over said cosimulation bridge include a functional AND disable; said
4 functional AND disable for defining a common disable for both said primary
5 simulator and said secondary simulator; said common disable being
6 activated responsive to a functional AND disable control from both said
7 primary simulator and said secondary simulator.

1 16. Apparatus for implementing dynamic cosimulation as recited in
2 claim 9 wherein said plurality of user selected optimization control signals
3 defined over said cosimulation bridge include a suspend signal for defining a
4 respective suspend control signal for each of said primary simulator and said
5 secondary simulator.

1 17. A computer program product for implementing dynamic
2 cosimulation in a computer system including a cosimulation bridge for data
3 exchange between a primary simulator and a secondary simulator, said
4 computer program product including instructions executed by the computer
5 system to cause the computer system to perform the steps of:

6 defining a plurality of user selected optimization control signals over
7 said cosimulation bridge;

8 identifying at least one user selected optimization control signal for
9 disabling said cosimulation bridge; and

10 dynamically disengaging said primary simulator and said secondary
11 simulator for ending data exchange responsive to said disabling said
12 cosimulation bridge.

1 18. A computer program product for implementing dynamic
2 cosimulation as recited in claim 17 wherein said instructions further cause
3 the computer system to perform the steps of checking for said identified
4 optimization control signal being inactive and responsive to said identified at
5 least one user selected optimization control signal being inactive for enabling
6 said cosimulation bridge and dynamically re-engaging said primary simulator
7 and said secondary simulator for data exchange.